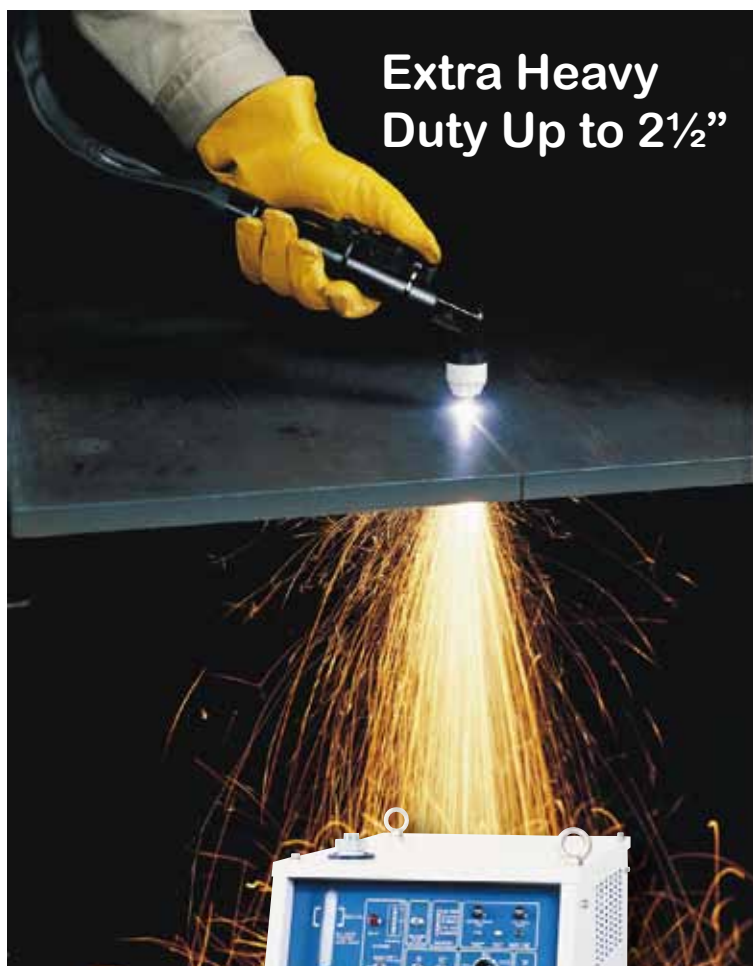




# ADVANCED WELDING & ROBOTIC SYSTEMS

## D-12000 Air Cutting Plasma System



**Extra Heavy  
Duty Up to 2½"**

## Total Solutions from the Single Source Provider

### Features and Benefits

- Production cuts up to 2 inches
- Maximum cuts up to 2-1/2 inches
- Water cooled – 100% duty cycle
- Built-in water circulator extends torch and consumable life
- Faster, safer, and more economical than oxy-fuel on 1" carbon steel
- Superior gouging capabilities
- I/O receptacle for automated cutting
- Built-in torch guard function (Alarm indicates replacement time of tip and electrode)
- Wide operation area (Up to 100 ft. torch option)
- Advanced safety protection circuits
- Fully variable output
- Cruise control
- Pulsed pilot arc start reduces electrode wear
- Diagnostic Indicators for troubleshooting
- Wheels provided for greater maneuverability

Cutting Thickness (in.)	1/2	3/4	1	1-1/2	2	2-1/2
Mild Steel	CLEAN CUT RANGE					
Stainless Steel						
Aluminum						

Capable of clean cutting nearly 2-inch carbon steel, the D-12000 is a safe and economical alternative to oxyfuel cutting. This system offers more unique, user-friendly features than any machine in its class.

Upon turning on the power source a self-diagnosis function takes place that will not allow the system to operate if an abnormal condition exist. Indicator lamps identify operational problems. Alarms will sound when unsafe conditions happen such as removing torch consumables with control power on.

Our patented "TORCH GUARD" feature monitors electrode consumption and indicates replacement time avoiding torch head damage from over use of the electrode.

**Featuring  
"TORCH GUARD"**

# Exceptional Value for Heavy Duty Applications

- The D-12000's built-in water circulator provides very efficient cooling of the torch head, and circulates water directly inside the electrode for extended consumable life. Compressed air is used for cutting and cooling the torch, thereby eliminating the need for expensive gases.
- The narrow plasma arc produces cut quality equal to oxyfuel with minimal or no dross, and virtually no heat-affected zone.
- A trigger-hold function can be turned on to provide cruise control for long cuts and automatic cutting applications.
- Durable torches are available in a multitude of lengths and torch head configurations for both semi-automatic and automatic cutting. The unique torch design and start circuit maximize consumable life to provide extended trouble free efficient use.

## Specifications

<b>Power Supply</b>	Name	TRC-121
	Cutting Mode	Air Plasma Cutting
	Number of Phases	Three Phase
	Rated Input Voltage (Auto-Select)	230/460 $\pm$ 10% (50/60Hz)
	Rated Input	28.3kW
	Rated Output Current	120 A
	Rated Output Current Range	30-120 A
	Rated Duty Cycle	100%
	Temperature Rise	+320° F (+160° C)
	External Dimensions	17.8" x 30.7" x 32.4" (453mm x 780mm x 823mm)
	Weight	384.0 lbs. (174.0 kg)
<b>Torch See Available Torches</b>	Standard Model	CTZW-1201
	Rated Current	120 A
	Rated Duty Cycle	100%
	Cable Length	33 ft.



## Available Torches

	Model	Type
<b>D-12000</b>	CTZW-1201	33 ft. Long Handle
	CTZWM-1201	66 ft. Long Handle
	CTPW-1201	33 ft. Machine
	CTPWM-1201	66 ft. Machine
	CTW-1201	33 ft. Short Handle
	CTWM-1201	66 ft. Short Handle

## Consumable Torch Parts

Torch Model	Max. Current (A)	Type	Tip	Electrode	Shield Cup
<b>CTZW-1201 (M), (L), (P)</b>	30	Standard	H839K03	H839M00	H839G02
	50		H839K02		
	80		H839K01		
	120		H839G03		
	120	Gouging	H839K04		

For more information on **OTC** brand products from DAIHEN INC. visit our web site at [daihen-usa.com](http://daihen-usa.com), or send us E-mail at [sales@daihen-usa.com](mailto:sales@daihen-usa.com)



OTC DAIHEN INC.  
(Headquarters)  
1400 Blauser Dr., Tipp City, OH 45371  
Ph: 937-667-0800 • Fax: 937-667-0885

Branch Offices: Atlanta, Georgia  
Charlotte, North Carolina  
Monterrey, Mexico  
Novi, Michigan



## D-12000 Air Plasma Power Supply

The D12000 is the ultimate machine for air plasma cutting applications. Capable of cutting up to 2.5" thick of steel plate (production cuts of up to 2"), the D12000 is both versatile and practical for cutting and gouging applications. For thin sheet metal, the D12000 can run production cuts at speeds of over 60 inches per minute (152 cm/min).

The D12000 utilizes an exterior interface box (FDWF-0005) for digital interfacing with the FD11 robot controller.

Item	Specification
Name	TRC-121
Cutting Mode	Air Plasma Cutting
Number of Phases	Three Phase
Rated Input Voltage (Auto-	230V / 460V $\pm$ 10% (50/60 Hz)
Rated Input	28.3 kVA
Rated Output Current	120 A
Rated Output Current	30 - 120 A
Rated Duty Cycle	100%
Temperature Rise	+320° F (+160° C)
External Dimensions	17.8" x 30.7" x 32.4" (453mm x 780mm x 823mm)
Weight	384.0 lbs. (174.0 kg)

## D12000 Key Features & Benefits

### Safe & Economical Alternative to Oxy-fuel

Capable of clean cutting nearly 2" (5.1cm) carbon steel and aluminum alloys, the D-12000 is a safe and economical alternative to oxy-fuel cutting. The D-12000 system offers more unique, user friendly features than any other machine in its class.

### Long Consumable Life

The D-12000's built-in water circulator provides very efficient cooling of the torch head, and circulates water directly inside the electrode for extended consumable life. Compressed air is used for cutting and cooling the torch, thereby eliminating the need for expensive gases.

### Self-Diagnosis Feature

Upon turning on the power source a self-diagnosis function takes place that will not allow the system to operate if an abnormal condition exists. Indicator lamps identify operational problems. Alarms will sound when unsafe conditions happen such as removing torch consumables with control power on.

### Torch Guard Feature

Our patented "TORCH GUARD" feature monitors electrode consumption and indicates replacement time avoiding torch head damage from over use of the electrode.

### Semi-Automatic & Robotic Cutting

The D-12000 can be setup for both semi-automatic (manual) usages, as well as integrated with our FD Series Arc Welding Robots. (Integrating to a robot requires internal interface box FDWF-0005). Please contact your regional sales manager for more information regarding robotic applications.

### Other Key Features & Specifications

- Only 3 consumable parts.
- Production cuts up to 2" (5.1cm) thick material (including Aluminum).
- Maximum cut up to 2-1/2" (6.4cm)
- Water cooled - 100% duty cycle.
- Built-in water circulator extends torch and consumable life.
- Faster, safer, and more economical than oxy-fuel on 1" (2.5cm) carbon steel.
- Superior gouging capabilities.
- I/O receptacle for automated cutting
- Built-in torch guard function (Alarm indicates replacement time of tip and electrode)

